

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Bruce W. Greenhaus on January 5, 2010.

Please cancel claims 1-4, 6, and 11-12.

Reasons For Allowance

2. The following is an examiner's statement of reasons for allowance:
3. Claims 9 and 13 are allowed (renumbering as 1-2 respectively).

The present invention is directed to method for allocating bits in non-periodic patterns to achieve frequency diversity in a multicarrier symbol. Non-periodic bit allocation insures that periodic nulls will not impair all copies of a bit within the multicarrier symbol. Each independent claim uniquely identifies the distinct claimed features.

Regarding independent claim 9 (Previously Presented) An OFDM modulator for transmitting a binary data word in a symbol having frequency diversity comprising: a ramp counter for producing a series of bin number values; a look up table for mapping the bin number values to bit select values, the look up table comprising entries that produce an assignment of bits to carriers, the assignment resulting in bits being repeated over a selection of carriers that have a non-uniform, pseudorandom pattern for distribution over a set of available frequencies upon which the carriers are transmitted.

The closest prior arts are silent with respect to the uniquely distinct claimed features: " a ramp counter for producing a series of bin number values; a look up table for mapping the bin number values to bit select values, the look up table comprising entries that produce an assignment of bits to carriers, the assignment resulting in bits being repeated over a selection of carriers that have a non-uniform, pseudorandom

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pattern for distribution over a set of available frequencies upon which the carriers are transmitted”.

The closest prior arts either singularly or in combination fail to anticipate or render the uniquely distinct claimed features obvious.

Additionally, the Applicant's arguments submitted on October 20, 2009 are deemed persuasive with respect to independent claim 9.

Dependent claim 13 is allowed by virtue of its dependency on claim 9.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Joo et al (US 7,301,892 B2), Ehrmann-Patin et al (US 7,058,005 B2), Walton et al (US 7,095,709 B2), Badri et al (US 7,173,979 B1), Korobkov et al (US 7,206,350 B2), Baum et al (US 2002/0085641 A1) and Reusens et al (US 6,351,473 B1).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to CANDAL ELPENORD whose telephone number is (571) 270-3123. The examiner can normally be reached on Monday through Friday 8:00AM to 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Bin Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Candal Elpenord/
Examiner, Art Unit 2473

/Steven HD Nguyen/
Primary Examiner, Art Unit 2473